OBJECT ORIENTED PROGRAMMING WITH JAVA 8– LAB 1

1.Write a program to print the name of the user.

Ans=

Code-

```
class Name
{
        public static void main (String args[])
        {
                System.out.println(" Username is Pratik");
        }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac Name.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Name
 Username is Pratik

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```

2.Write a program for concatenating First name, Last name and display it. Enter the names as command line arguments.

Ans=

Code-

```
class Concat
{
        public static void main (String args[])
        {
                String firstName=(args[0]);
                String lastName=(args[1]);
                String fullName= firstName + " " + lastName;

                System.out.print("Full Name is:" + fullName);
        }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac Concat.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Concat Cristiano Ronaldo
Full Name is:Cristiano Ronaldo
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```

3. Write a program to calculate the Simple interest where principal, interest and time period are given as command line arguments.

(Simple Interest=P × r × n where P=Principal, r=Interest rate, n=Term of loan in years)

Ans=

Code-

```
class Intrest
{
        public static void main(String[] args)
        {
                double Principal=Double.parseDouble(args[0]);
                double InterestRate=Double.parseDouble(args[1]);
                double TermYear=Double.parseDouble(args[2]);

                double simpleIntrest = (Principal * InterestRate * TermYear)/100;

                System.out.println("Simple Interest is" + simpleIntrest);
        }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac Intrest.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Intrest 20000 3 2
Simple Interest is1200.0

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Intrest 30000 2.5 3
Simple Interest is2250.0

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```

4. Write a program that averages the rain fall for three months, April, May, and June. Declare and initialize a variable to the rain fall for each month. Compute the average, and write out the results, in the following format:

Rainfall for April : 12

Rainfall for May : 14

Rainfall for June : 8

Average rainfall : 11.333333

To get the numerical values to line up use the tabulation character '\t' as part of the character string in the output statements.

Ans=

Code-

```
class Rainfall
{
        public static void main(String[] args)
        {
         double AprilRain=Double.parseDouble(args[0]);
         double MayRain=Double.parseDouble(args[1]);
         double JuneRain=Double.parseDouble(args[2]);

         double AvgRainfall=(AprilRain + MayRain + JuneRain)/3;

         System.out.print("Average rainfall:" + AvgRainfall);
        }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac Rainfall.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Rainfall 112.2 65.8 94
Average rainfall:90.66666666666667
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```

5. Write a program to initialize two numbers, swap them and print.

Ans=

Code-

```
class Numbers
{
        public static void main(String[] args)
                {
                 int N1=10;
                 int N2=20;

                 int temp=N1;
                 N1=N2;
                 N2=temp;

                 System.out.println("After swapping:");
                 System.out.println("N1:" + N1);
                 System.out.println("N2:" + N2);
                }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac Numbers.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Numbers
After swapping:
N1:20
N2:10

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```

6. Write a program to convert a given Fahrenheit value into Celsius value (C = (F – 32) * 5 / 9).

Ans=

Code-

```
class FtoC
{
        public static void main(String[] args)
        {
                Double Fahrenheit=Double.parseDouble(args[0]);

                Double Celsius=(Fahrenheit - 32) * 5 / 9;

                System.out.print("Celsius Temperature is" + Celsius);
        }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac FtoC.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java FtoC 37
Celsius Temperature is2.777777777777777
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```

7. Write a program to calculate the perimeter of a rectangle where length and breadth are given as command line arguments.

(P = 2(l + w))

Ans=

Code-

```
class Perimeter
{
        public static void main(String[] args)
        {
         double length=Double.parseDouble(args[0]);
         double breadth=Double.parseDouble(args[1]);

         double perimeter=2 * (length + breadth);

         System.out.println("Perimeter of the rectangle:" + perimeter);
        }
}
```

Execution-

```
C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>javac Perimeter.java

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>java Perimeter 20 42
Perimeter of the rectangle:124.0

C:\Users\p7pha\OneDrive\Desktop\Cdac DBDA\JAVA\Lab 1>
```